

#10

NOV 13 2001

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/698,903B

DATE: 10/01/2001

TIME: 13:39:15

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\10012001\I698903B.raw

ENTERED

3 <110> APPLICANT: Weston, et al.
 5 <120> TITLE OF INVENTION: MALE-STERILE BRASSICA PLANTS AND METHOD FOR PRODUCING SAME
 7 <130> FILE REFERENCE: 514412-2020.1
 9 <140> CURRENT APPLICATION NUMBER: 09/698,903B
 10 <141> CURRENT FILING DATE: 2000-10-27
 12 <150> PRIOR APPLICATION NUMBER: 09/430,437
 13 <151> PRIOR FILING DATE: 1999-10-29
 15 <160> NUMBER OF SEQ ID NOS: 14
 17 <170> SOFTWARE: PatentIn version 3.0
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 5865
 21 <212> TYPE: DNA
 C--> 22 <213> ORGANISM: Artificial Sequence ✓
 24 <220> FEATURE:
 25 <221> NAME/KEY: misc_feature
 26 <222> LOCATION: (1)..(5865)
 27 <223> OTHER INFORMATION: DNA sequence of regions comprised between the T-DNA border ✓

repeat

28 s of plasmid pTCO113

31 <400> SEQUENCE: 1

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36	atatattattg	ataaaataac	aagtcaggta	ttatagtcca	agcaaaaaca	taaatttatt	180
38	gatgcaagtt	taaattcaga	aatatttcaa	taactgatta	tatcagctgg	tacattgccg	240
40	tagatgaaag	actgagtgcg	atattatgtg	taatacataa	attgatgata	tagctagctt	300
42	agctcatcgg	gggatacctag	aacgcgtgat	ctcagatctc	ggtagacgggc	aggaccggac	360
44	ggggcggtac	cggcaggctg	aagtccaagt	gccagaaacc	cacgtcatgc	cagttcccgt	420
46	gcttgaagcc	ggccgccccg	agcatgccgc	ggggggcata	tccgagcgcc	tcgtagcatgc	480
48	gcacgctcgg	gtcgttgggc	agcccgatga	cagcgaccac	gctcttgaag	ccctgtgcct	540
50	ccagggactt	cagcagggtg	gtgtagagcg	tggagcccag	tcccgtccgc	tggtagcggg	600
52	gggagacgta	cacggtcgac	tccggccgtcc	agtcgtaggc	gttgctgtgc	ttccaggggc	660
54	ccgcgtaggc	gatgcccggc	acctcgccgt	ccacctcggc	gacgagccag	ggatagcgct	720
56	cccgacagcg	gacgaggctg	tccgtccact	cctgcggttc	ctgcggctcg	gtacggaagt	780
58	tgaccgtgct	tgtctcgatg	tagtggttga	cgatggtgca	gaccgcccgc	atgtccgcct	840
60	cgggtggcacg	gcggtatgtc	gccgggcgtc	gttctgggtc	cattgttctt	ctttactctt	900
62	tgtgtgactg	aggtttggtc	tagtgctttg	gtcatctata	tataatgata	acaacaatga	960
64	gaacaagctt	tggagtgtac	ggagggtcta	ggatacatga	gattcaagtg	gactaggatc	1020
66	tacaccgttg	gattttgagt	gtggatatgt	gtgaggttaa	ttttacttgg	taacggccac	1080
68	aaaggcctaa	ggagagggtg	tgagaccctt	atcggttga	accgctggaa	taatgccacg	1140
70	tggaagataa	ttccatgaat	cttatcgtta	tctatgagtg	aaattgtgtg	atggtggagt	1200
72	ggtgcttgct	cattttactt	gcctgggtga	cttgccctt	tccttatggg	gaatttatat	1260
74	tttacttact	atagagcttt	catacctttt	ttttaccttg	gatttagtta	atatataatg	1320
76	gtatgattca	tgaataaaaa	tgggaaattt	ttgaatttgt	actgctaaat	gcataagatt	1380
78	aggtgaaact	gtggaatata	tatttttttc	atttaaaagc	aaaatttgcc	ttttactaga	1440
80	attataaata	tagaaaaata	tataacattc	aaataaaaat	gaaaataaga	actttcaaaa	1500
82	aacagaacta	tgtttaatgt	gtaaaagatta	gtcgcacatc	aagtcactctg	ttacaatatg	1560
84	ttacaacaag	tcataagccc	aacaaaagtt	gcacgtctaa	ataaaactaaa	gagtccacga	1620
86	aaatattaca	aatacataagc	ccaacaaagt	tattgatcaa	aaaaaaaaaa	cgcccaacaa	1680

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88 agctaaacaa agtccaaaaa aaactttctca agtctccatc ttcctttatg aacattgaaa 1740
90 actatacaca aaacaagtca gataaatctc tttctgggcc tgtcttccca acctcctaca 1800
92 tcacttccct atcggattga atgttttact tgtacctttt ccgttgcaat gatattgata 1860
94 gtatgtttgt gaaaactaat agggttaaca atcgaagtca tggaatatgg atttggtcca 1920
96 agattttccg agagctttct agtagaaaagc ccatcaccag aaatttacta gtaaaaataaa 1980
98 tcaccaatta ggtttcttat tatgtgccaa attcaataa attatagagg atatttcaaa 2040
100 tgaaaacgta tgaatggtat tagtaaattg tcaggtaaga cattaaaaaa atcctacgtc 2100
102 agatattcaa ctttaaaaaa tcgatcagtg tggaattgta caaaaatttg ggatctacta 2160
104 tatatatata atgctttaca acacttggat ttttttttgg aggctggaat ttttaactca 2220
106 catatttggt ttggccatgc accaactcat tgtttagtgt aatactttga ttttgtaaaa 2280
108 tatatgtgtt cgtgtatatt tgtataagaa tttctttgac catatacaca cacacatata 2340
110 tatatatata tatatattat atatcatgca cttttaattg aaaaaataat atatatatat 2400
112 atagtgcatt ttttctaaca accatatatg ttgcgattga tctgcaaaaa tactgctaga 2460
114 gtaatgaaaa atataatcta ttgctgaaat tatctcagat gtttaagattt tcttaaaagta 2520
116 aattctttca aatttttagct aaaagtcctg taataactaa agaataatac acaatctcga 2580
118 ccacggaaaa aaaacacata ataaatttga atttcgaccg cggtagcccg aattcgagct 2640
120 cggtagcccg ggatcttccc gatctagtaa catagatgac accgcgcgcg ataatttatc 2700
122 ctagtttgcg cgctatattt tgttttctat cgcgtattaa atgtataatt gcgggactct 2760
124 aatcataaaa acccatctca taaataacgt catgcattac atgttaatta ttacatgctt 2820
126 aacgtaattc aacagaaaatt atatgataat catcgcaaga ccggcaacag gattcaatct 2880
128 taagaaactt tattgccaaa tgtttgaacg atctgcttcg gatcctctag agccggaaaag 2940
130 tgaaattgac cgatcagagt ttgaagaaaa atttattaca cactttatgt aaagctgaaa 3000
132 aaaacggcct ccgcaggaag ccgttttttt cgttatctga tttttgtaaa ggtctgataa 3060
134 tggcccggtt ttttgtaaat cagccagtcg cttgagtaaa gaatccggtc tgaatttctg 3120
136 aagcctgatg tatagttaat atccgcttca cgccatgttc gtccgctttt gcccgggagt 3180
138 ttgccttccc tgtttgagaa gatgtctccg ccgagtcttt tccccggagc gacgtctgca 3240
140 aggttccctt ttgatgccac ccagccgagg gcttgtgctt ctgattttgt aatgtaatta 3300
142 tcaggtagct tatgatattg ctgaagataa tccgcaaccc cgtcaaacgt gttgataacc 3360
144 ggtaccatgg tagctaattt ctttaagtaa aaactttgat ttgagtgatg atgttgact 3420
146 gttacacttg caccacaagg gcatatatag agcacaagac atacacaaca acttgcaaaa 3480
148 ctaacttttg ttggagcatt tcgaggaaaa tggggagtag caggctaata tgagggtaac 3540
150 attaagggtt catgtattaa tttgttgcaa acatggactt agtgtagga aaaagtacca 3600
152 aaattttgtc tcaccctgat ttcagttatg gaaattacat tatgaagctg tgctagagaa 3660
154 gatgtttatt ctagtccagc caccacctt atgcaagtct gcttttagct tgattcaaaa 3720
156 actgatttaa tttacattgc taaatgtgca tacttcgagc ctatgtcgct ttaattcgag 3780
158 taggatgtat atattagtac ataaaaaatc atgtttgaat catctttcat aaagtgacaa 3840
160 gtcaattgtc ctttcttggt tggcactata ttcaatctgt taatgcaaat tatccagtta 3900
162 tacttagcta gatatccaat tttgaataaa aatagctctt gattagtaaa ccggatagtg 3960
164 acaaagtcac atatccatca aacttctggt gctcgtggct aagttctgat cgacatgggg 4020
166 ttaaaattta aattgggaca cataaatagc ctatttctgc aaatctcccc atcgaaaaatg 4080
168 acagattgtt acatggaaaa caaaaagtcc tctgatagaa gtcgcaaaat atcacaattt 4140
170 tctatcgaga gatagattga aagaagtgcg gggagcggt taactggaac ataacacaat 4200
172 gtctaaatta attgcattcg ctaacaaaaa agtgtattac tctctccggt ccacaataag 4260
174 ttattttttg gccctttttt tatggtccaa aataagttag ttttttagat ttcaaaaatg 4320
176 atttaattat ttttttacta cagtgccttt ggagtaaatg gtgttgagat atgtgttaga 4380
178 aatgtttatg tgaagaaata gtaaaggtta atatgatcaa tttcattgct atttaagtgt 4440
180 aaaatgtgaa tttcttaatc tgtgtgaaaa caacaaaaaa atcacttatt gtggaccgga 4500
182 gaaagtatat aaatatatat ttggaagcga ctaaaaaata acttttctca tattatacga 4560
184 acctaaaaac agcatatggt agtttctagg gaatctaaat cactaaaatt aataaaaagaa 4620

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186 gcaacaagta tcaatacata tgattttacac cgtcaaacac gaaattcgta aatattttaat 4680
188 ataataaaga attaatccaa atagcctccc accctataac ttaaactaaa aataaccagc 4740
190 gaatgtatat tatatgcata atttatatat taaatgtgta taatcatgta taatcaatgt 4800
192 ataatctatg tatatggtta gaaaaagtaa acaattaata tagccggcta tttgtgtaaa 4860
194 aatccctaata ataatcgga cggatccccg ggaattccgg ggaagcttag atccatgcag 4920
196 atctgatcat gagcggagaa ttaagggagt cacgttatga ccccgccga tgacgcggga 4980
198 caagccgttt tacgtttgga actgacagaa ccgcaacgat tgaaggagcc actcagccgc 5040
200 gggtttctgg agtttaata gctaagcaca tacgtcagaa accattattg cgcgttcaaa 5100
202 agtcgcctaa ggtcactatc agctagcaaa tatttcttgt caaaaatgct ccactgacgt 5160
204 tccataaatt cccctcggtt tccaattaga gtctcatatt cactctcaat ccaaaccatg 5220
206 aaaaaagcag tcattaacgg ggaacaaatc agaagtatca gcgacctcca ccagacattg 5280
208 aaaaaggagc ttgcccttcc ggaatactac ggtgaaaacc tggacgcttt atgggattgt 5340
210 ctgaccggat ggggtggagta cccgctcggt ttggaatgga ggcagtttga acaaagcaag 5400
212 cagctgactg aaaatggcgc cgagagtgtg cttcagggtt tccgtgaagc gaaagcgga 5460
214 ggctgcgaca tcaccatcat actttcttaa tacgatcaat gggagatgaa caatatggaa 5520
216 acacaaaccc gcaagcttgg tctagaggat ccccgatga gctaagctag ctatatcatc 5580
218 aatttatgta ttacacataa tatcgactc agtctttcat ctacggcaat gtaccagctg 5640
220 atataatcag ttattgaaat atttctgaat ttaaacttgc atcaataaat ttatgttttt 5700
222 gcttgacta taatacctga cttgttat ttatcaataaa tatttaaaact atatttcttt 5760
224 caagatggga attaacatct acaaattgcc ttttcttctc gaccatgtac atcgagctct 5820
226 ccccgatct gcatggagcc atttacaatt gaatatatcc tgccg 5865
229 <210> SEQ ID NO: 2
230 <211> LENGTH: 21
231 <212> TYPE: DNA
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <221> NAME/KEY: misc_feature
236 <222> LOCATION: (1)..(21)
237 <223> OTHER INFORMATION: primer MDB355
240 <400> SEQUENCE: 2
241 gtaacataga tgacaccgcg c 21
244 <210> SEQ ID NO: 3
245 <211> LENGTH: 21
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <221> NAME/KEY: misc_feature
251 <222> LOCATION: (1)..(21)
252 <223> OTHER INFORMATION: primer MLD008
255 <400> SEQUENCE: 3
256 ataggggtggg aggctatttg g 21
259 <210> SEQ ID NO: 4
260 <211> LENGTH: 15
261 <212> TYPE: DNA
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <221> NAME/KEY: misc_feature
266 <222> LOCATION: (1)..(15)
267 <223> OTHER INFORMATION: primer MDB285

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270 <220> FEATURE:
 271 <221> NAME/KEY: variation
 272 <222> LOCATION: (6)..(6)
 273 <223> OTHER INFORMATION: "s" can be either g or c
 276 <220> FEATURE:
 277 <221> NAME/KEY: variation
 278 <222> LOCATION: (1)..(1)
 279 <223> OTHER INFORMATION: "n" can be any nucleotide a, c, t or g
 282 <220> FEATURE:
 283 <221> NAME/KEY: variation
 284 <222> LOCATION: (8)..(8)
 285 <223> OTHER INFORMATION: "w" can be either a or t(u)
 288 <220> FEATURE:
 289 <221> NAME/KEY: variation
 290 <222> LOCATION: (12)..(12)
 291 <223> OTHER INFORMATION: "w" can be either a or t(u)
 294 <220> FEATURE:
 295 <221> NAME/KEY: variation
 296 <222> LOCATION: (10)..(10)
 297 <223> OTHER INFORMATION: "s" can be either g or c
 300 <400> SEQUENCE: 4

W--> 301 ntcgastwts gwggtt 15
 304 <210> SEQ ID NO: 5
 305 <211> LENGTH: 25
 306 <212> TYPE: DNA
 307 <213> ORGANISM: Artificial Sequence
 309 <220> FEATURE:
 310 <221> NAME/KEY: misc_feature
 311 <222> LOCATION: (1)..(25)
 312 <223> OTHER INFORMATION: primer MDB251
 315 <400> SEQUENCE: 5
 316 ggatcccccg atgagctaag ctagc 25
 319 <210> SEQ ID NO: 6
 320 <211> LENGTH: 22
 321 <212> TYPE: DNA
 322 <213> ORGANISM: Artificial Sequence
 324 <220> FEATURE:
 325 <221> NAME/KEY: misc_feature
 326 <222> LOCATION: (1)..(22)
 327 <223> OTHER INFORMATION: primer MDB193
 330 <400> SEQUENCE: 6
 331 tcattctacgg caatgtacca gc 22
 334 <210> SEQ ID NO: 7
 335 <211> LENGTH: 20
 336 <212> TYPE: DNA
 337 <213> ORGANISM: Artificial Sequence
 339 <220> FEATURE:
 340 <221> NAME/KEY: misc_feature
 341 <222> LOCATION: (1)..(20)

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342 <223> OTHER INFORMATION: primer MDB258
345 <400> SEQUENCE: 7
346 ctacggcaat gtaccagctg 20
349 <210> SEQ ID NO: 8
350 <211> LENGTH: 415
351 <212> TYPE: DNA
352 <213> ORGANISM: Artificial Sequence
354 <220> FEATURE:
355 <221> NAME/KEY: misc_feature
356 <222> LOCATION: (1)..(415)
357 <223> OTHER INFORMATION: right (5') border flanking region of elite event MS-B2
360 <400> SEQUENCE: 8
361 gtcgagtttg gtgttcatga ttttgggttt tgactcttca ccattacata ttgaaactct 60
363 tacggatgag aacaactcac aagcattaat catgttcata taaatatatg tacattatac 120
365 gtatatatac acgtatacaa atagtagcga agaaatccat gtaaagcagc agggggcacc 180
367 atggtttcaa gtattatata attataatta taattatggt aggatgtaca tggccgataa 240
369 gaaaaggcaa ttgttagatg ttaattccca tcttgaaaga aatatagttt aaatatattat 300
371 tgataaaata acaagtcagg tattatagtc caagcaaaaa cataaattta ttgatgcaag 360
373 tttaaattca gaaatatttc aataactgat tatatcagct ggtacattgc cgtag 415
376 <210> SEQ ID NO: 9
377 <211> LENGTH: 24
378 <212> TYPE: DNA
379 <213> ORGANISM: Artificial Sequence
381 <220> FEATURE:
382 <221> NAME/KEY: misc_feature
383 <222> LOCATION: (1)..(24)
384 <223> OTHER INFORMATION: primer MDB8
387 <400> SEQUENCE: 9
388 tcagaagtat cagcgacctc cacc 24
391 <210> SEQ ID NO: 10
392 <211> LENGTH: 416
393 <212> TYPE: DNA
394 <213> ORGANISM: Artificial Sequence
396 <220> FEATURE:
397 <221> NAME/KEY: misc_feature
398 <222> LOCATION: (1)..(416)
399 <223> OTHER INFORMATION: left (3') border flanking region of the elite event MS-B2
402 <400> SEQUENCE: 10
403 ctacggcaat gtaccagctg atataatcag ttattgaaat atttctgaat ttaaacttgc 60
405 atcaataaaw ttatgttttt gcttggaacta taatacctga cttgttatat tatcaataaa 120
407 tattttaaact atatttcttt caagatggga attaacatct acaaattgcc ttttcttatt 180
409 gaccatgtac atcctacat aattataatt ataattatat aatactgaaa ccatgggtgcc 240
411 cctgtctgct ttacatggat ttctccgcta ctatttgat acgtgtatat ataccgtata 300
413 atgtacatat atttatatga acatgattaa tgcttgtagg ttgttctcat ccgtaagagt 360
415 ttcaatatgt aatgggtgaag agtcaaaacc caaatcatg aacacccaaa ctcgat 416
418 <210> SEQ ID NO: 11
419 <211> LENGTH: 23
420 <212> TYPE: DNA
421 <213> ORGANISM: Artificial Sequence

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VERIFICATION SUMMARY

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L:22 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1

L:301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4